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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

July 21, 2006

Mr. Philip Allen  
Remedial Project Manager  
US Environmental Protection Agency  
1445 Ross Ave Ste 1200  
Dallas, TX 75202-2733

Re: Star Lake Canal  
Federal Superfund Site, Jefferson County, Texas  
Texas Commission on Environmental Quality (TCEQ) Comments on  
Revised Remedial Investigation Work Plan

Dear Mr. Allen:

The Texas Commission on Environmental Quality (Commission) has completed a review of the Remedial Investigation Work Plan (Work Plan) submitted by Entrix for the Star Lake Canal Superfund site (Site). This letter discusses two issues: (1) Entrix's designation of the Texas Risk Reduction Program (TRRP) cleanup values as "guidance" criteria and (2) the need to address TRRP requirements for affected property assessment, human health risk assessment, exposure pathways, and chemicals of concern screening methods for the remedial investigation of the Site.

The Commission objects to the designation of the Texas Risk Reduction Program (TRRP) Rules as "guidelines" for the Tier 1 human health risk assessment rather than as "applicable or relevant and appropriate requirements" (ARARs). The TRRP (Chapter 350 of Title 30 of the Texas Administrative Code) regulatory provisions apply when there has been a release of chemicals of concern (COCs) into the environment. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 121(d)(2)(A)(ii), 42 U.S.C. § 9621(d)(2)(A)(ii), requires that a remedial action addressing onsite contamination attain any "applicable *or* relevant and appropriate [State] environmental standard, requirement, criteria, or limitation (emphasis added)," which is promulgated and more stringent than Federal provisions. As signified by the "*or*," there are two categories of ARARs – those that are included because they are "applicable" and those that qualify because they are "relevant and appropriate." The TRRP requirements for affected property assessment, human health risk assessment, complete or anticipated complete exposure pathways, and chemicals of concern (COCs) screening methods meet the regulatory and legal standards delineated for "applicable." Alternatively, even if the same requirements failed to satisfy the "applicable" factors, the "relevant and appropriate" standards are met. Thus, applicable TRRP requirements should be designated as ARARs for the Site.

The requirements of 30 Texas Administrative Code (TAC) Chapter 350, Subchapter C regarding Affected Property Assessment are potentially applicable or relevant and appropriate to the conduct of the remedial investigation. The Assessment Level as defined by TRRP should be used for contaminants of concern

where it is lower than the value that would otherwise be used to define the nature and extent of the contamination. The Critical Protective Concentration Level (PCL), as defined by TRRP, should be used as the risk based clean-up value for those contaminants of concern where this concentration is lower than the risk based concentration developed in the Baseline Human Health Risk Assessment and the ecological risk assessment. In the development of both the Assessment Levels and the Critical PCLs, the TRRP requires an evaluation of all complete or reasonably anticipated to be complete exposure pathways as described in 30 TAC § 350.71 and, when necessary, the ecological exposure pathways required in 30 TAC § 350.77 should be considered applicable. Furthermore, the screening criteria listed in the Work Plan is different from criteria listed in 30 TAC § 350.71(k), allowing a potential discrepancy where a contaminant in a given media may be dropped from the development of a risk based PCL under one set of criteria, but not the other. The Assessment Level and Critical PCL values need to be developed for all COCs that cannot be screened from PCL development under 30 TAC § 350.71(k).

Based on the definition of “applicability” contained in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the aforementioned TRRP requirements should be designated as applicable to the remedial action at the Site.

“Applicable requirements means those *cleanup standards*, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environment or facility siting laws *that specifically address a hazardous substance, pollutant, contaminant*, remedial action, location, or other circumstance *found* at a CERCLA site. Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable (emphasis supplied).” 40 CFR § 300.5 (2000).

As in Section 121 (d)(2)(A) of CERCLA, the focus of the definition of “applicable requirements” is on the hazardous substances, pollutants, or contaminants that remain on site. Additionally, the general mandates for identifying ARARs contained in the rule directs the lead and support agencies to identify requirements applicable to the release or remedial action contemplated “based upon an objective determination of whether the requirement specifically addresses a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site.” 40 CFR § 300.400(g)(1). The TRRP provisions specifically address the actions being undertaken at the Star Lake Superfund Site. Namely, the provisions of 30 TAC Chapter 350, Subchapter C address requirements for a remedial investigation. Also, the provisions of 30 TAC Chapter 350, Subchapter D address the requirements for the development of protective concentration levels for human health and ecological receptors, which would ultimately become the clean up levels for any remedial action undertaken.

The conclusion that the applicability of a requirement can be determined by the nature of the substance that is addressed as opposed to whether a governmental entity is performing the cleanup is fortified by the explanation contained in the NCP Proposed Rule Preamble. “Basically, in determining applicability, the question is whether a regulation would be legally enforceable at the site (or for the contaminant or action) if a *private party* were remediating the site apart from any CERCLA authority.” 53 Fed. Reg. 51436 (1988). As explained in the Proposal to the NCP, applicable requirements are identified by a largely objective comparison to the circumstances at the site; if there is a one-to-one correspondence between the requirement and the circumstances at the site, the requirement is applicable. 53 Fed. Reg. 51436-51437 (1988). The TRRP regulations apply for the remediation of affected property at facilities used for the storage, processing or disposal of industrial solid waste or municipal hazardous waste, or for the remediation of environmental media containing COCs resulting from releases from waste management facility components. 30 TAC § 350.2(h). The Critical PCL’s developed under TRRP are cleanup standards that specifically address the contaminants that remain on the Site. These requirements would be the legally enforceable regulation were a private party performing the remediation at the Site. Therefore,

this portion of the ARAR test has been met, and the TRRP requirements are the applicable requirement for remediation.

Treating TRRP as an applicable ARAR would be sound public policy. As matter of practice, the Commission and its predecessor agencies have consistently applied TRRP (or its predecessor, 30 TAC Chapter 335, Subchapter S) to all sites subject to state superfund cleanup pursuant to Chapter 361 of the Texas Health and Safety Code. By adopting a similar approach, Entrix could avoid a dichotomy on applicable federal/state cleanup standards consistent with the 1986 SARA amendments embodied in Section 121(d), as well as the application of different standards to a federal site in Texas depending on whether EPA or a potentially responsible party (PRP) was cleaning up the site. Accordingly, we urge that EPA compel Entrix to revise its Work Plan for the Site to acknowledge TRRP's requirements as ARARs; specifically, TRRP's Affected Property Assessment requirements, the requirements for analysis of all complete or reasonably anticipated to be complete exposure pathways in the risk assessment, and requirements for the development of Critical PCL's for all COCs where the TRRP regulatory requirements yield a lower (more stringent) value than the cleanup values generated by Entrix's Baseline Human Health and Ecological Risk Assessments.

Even if a determination is made that the "applicable" portion of the test is not met, the aforementioned TRRP standards constitute "relevant and appropriate" requirements based upon the criteria contained in the NCP. EPA has defined the "relevant and appropriate" requirement in 40 CFR § 300.5.

"Relevant and appropriate requirements means *those cleanup standards*, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, *address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site*. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate (emphasis supplied)."

Further guidance is provided for the identification of relevant and appropriate requirements in 40 CFR § 300.400(g)(2). The rule lists factors to evaluate, where pertinent, to determine whether a requirement addresses problems or situations sufficiently similar to the circumstances of the release or remedial action contemplated and is well-suited to the site. It is unnecessary that the requirement and site situation be similar with respect to each factor for a requirement to be relevant and appropriate. 55 Fed. Reg. 8743 (1990). Consideration of the pertinent factors contained in the rule indicates the PCLs represent a remedial requirement that is sufficiently similar and well-suited to the Site and should thus be characterized as relevant and appropriate.

First, the purpose of the TRRP Affected Property Assessment and the purpose of the CERCLA Remedial Investigation are sufficiently similar. The purpose of the TRRP Affected Property Assessment is to collect information necessary to support notification of affected landowners and remedy selection, and to determine whether or not water resources have been affected or are threatened, 30 TAC § 350.51(a). Similarly, the purpose of a remedial investigation under CERCLA is to collect data necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives, pursuant to 40 CFR § 300.430(d)(1). Second, the requirements of the TRRP Affected Property Assessment are significantly more detailed in scope than the requirements of the Remedial Investigation described in the NCP, and those requirements are not inconsistent with and serve to clarify the requirements contained in the NCP.

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Using the data from the Remedial Investigation, the Baseline Risk Assessment characterizes the current and potential threats to human health and the environment that may be posed by contaminants migrating to groundwater or surface water, releasing to air, leaching through soil, remaining in the soil, and bioaccumulating in the food chain. The results of the Baseline Risk Assessment establish acceptable exposure levels for use in developing remedial alternatives in the feasibility study, where preliminary remediation goals are defined in 40 CFR § 300.430(d)(4) and in 40 CFR § 300.430(e)(2)(i). The requirements of 30 TAC §§ 350.71 – 350.79 (relating to the Development of Protective Concentration Levels) describe the methods for establishing concentration levels that can remain in the source media and be protective of human and ecological receptors at the point of exposure—within each exposure medium. These protective concentration levels are then used to define a Critical protective concentration level for each contaminant in each medium impacted, which is ultimately used as a clean-up level analogous to the preliminary remediation goals. Because of the differences in the methods used to develop Critical PCLs and Preliminary Remediation Goals, it may vary by contaminant and media which is more protective. Therefore, for those contaminants and media where the Critical PCL is more protective than the Preliminary Remediation Goal developed for the Star Lake Canal site, the Critical PCL should be used.

As articulated in the preamble for the proposal of the NCP, for chemical-specific requirements, the focal point for the relevant and appropriate determination is whether the requirement for the chemical at the CERCLA site sets a health or environmental based level based on an exposure scenario (including the medium) similar to the potential exposure at a CERCLA site. 53 Fed. Reg. 51436 (1988). The TRRP requirements are essentially cleanup levels that take into account the complete and reasonably anticipated to be completed ecological and human health exposure pathways for properties affected by a release of chemical(s) of concern. 24 Tex. Reg. 7450 (1999).

Once a regulation (or portion thereof) is identified as relevant and appropriate, it is applied as strictly as is an applicable requirement. 53 Fed. Reg. 51437 (1988). TRRP requirements specifically regulate and correspond to the purpose of the remedial action at the Star Lake site, the affected environmental medium, the substances found at the Site, the activities of the remedial action, the type and size of the place affected by the release and the use or potential use of the affected resource. TRRP requirements clearly satisfy the considerations provided for in the determination of “relevant and appropriate” requirements. Therefore, those requirements should be legitimately utilized in the Work Plan as ARARs.

We thank you in advance for your attention in this matter. Please contact me at (512) 239-5454 or [SSCHREIE@tceq.state.tx.us](mailto:SSCHREIE@tceq.state.tx.us) if you would like to discuss these issues in a conference call or meeting with Commission staff involved with the Site to determine if differences exist between the Commission and EPA on a practical level. Additionally, please do not hesitate to contact me with any questions.

Sincerely,

*for*   
Sarah A. Schreier, P.G., Project Manager  
Team 1, Environmental Cleanup Section II  
Remediation Division  
Texas Commission on Environmental Quality

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